

## **REMARKS**

### **STATUS OF THE CLAIMS**

Claims 1-5, 7, 8, 10, 11, 13-18, 21-26, 31, 34, 35 and 38-47 were pending. Claims 1-5, 7, 8, 10, 11, 13-18, 21-26, 31, 35 and 38-47 have been withdrawn from consideration pursuant to a restriction requirement.

Claim 34 is under examination and has been amended as shown above to make explicit what was previously implicit, namely that both first and second polypeptides bind to DNA (as described throughout the specification as filed, for example, on page 5, lines 13-28) and that the ligand component of the complex binds to both polypeptide components of the complex (as described, for example, at page 53, line 18).

Withdrawn claim 1 has been amended to comport with amended claim 34. Withdrawn claims 1-5, 8, 13-15, 18, 21, 22, 38, 39, 40, 46 and 47 were previously amended to comport with claim 34. Applicants apologize for any confusion caused by their previous use of the status identifier "currently amended" for withdrawn claims, but note that the Patent Office has indicated that claims should have only one status identifier and has deemed "non compliant" listings of the claims including two or more status identifiers (*e.g.*, "withdrawn and currently amended").

Claims 14 and 39 have been amended to correct typographical errors.

Claim 3 has been canceled, without prejudice or disclaimer.

Thus, claims 1, 2, 4, 5, 7, 8, 10, 11, 13-18, 21-26, 31, 34, 35 and 38-47 are pending as shown above and claim 34 has been examined.

### **RESTRICTION**

Applicants appreciate the Examiner's noting the typographical error in which the right to rejoinder was inadvertently "reversed" rather than "reserved." The Examiner is correct in noting that Applicant wish to reserve their right to rejoinder.

### **REJECTIONS WITHDRAWN**

Applicants note with appreciation that the rejections of claim 34 under 35 U.S.C. §§ 102 (a), (b) and (e) based on Uchida, Nicola, Carpenter, Alberts and Menzel have been withdrawn.

### 35 U.C.S. § 102

Examined claim 34 has been rejected under 35 U.S.C. § 102 as allegedly anticipated by a variety of references. (Office Action, pages 3-5). In particular, claim 34 remains rejected under 35 U.S.C. § 102(b) as allegedly anticipated by McEwan and stands newly rejected under 35 U.S.C. § 102(e) as allegedly anticipated by any one of U.S. Patent No. 6,046,047 (hereinafter "Crabtree"), U.S. Patent No. 6,479,653 (hereinafter "Natesan '653"), U.S. Patent No. 6,015,709 (hereinafter "Natesan '709"), or U.S. Patent No. 6,326,166 (hereinafter "Pomerantz").

### Claim Construction

Claim 34 is directed to a switching system comprising first and second polypeptides and a ligand, wherein the first polypeptide binds to the second polypeptide in a manner modulatable by a ligand. In addition, both the first and second polypeptides (1) bind to the ligand and (2) bind to DNA.

### References Addressed

As noted above, claim 34 requires that the ligand binds to both the first and second polypeptides, and that both the first and second polypeptides bind to DNA. None of the cited references disclose such switching systems.

In particular, while Table 1 of McEwan discloses ligand-dependent interaction of glucocorticoid, estrogen and retinoid receptors with other proteins, the Office does not make clear which of these proteins (either the receptors or the proteins with which they interact) bind DNA. In light of McEwan's teaching that many of the effects of the glucocorticoid receptor are mediated by protein-protein interactions and do not require DNA binding by the receptor<sup>1</sup>, it is respectfully suggested that the Office must identify a particular receptor-protein pair, and show that both members of the pair bind DNA, for this rejection to stand. Moreover, although McEwan teaches that ligand binding can induce a conformational change in the receptor that, in certain circumstances, alters the ability of the receptor to bind to other proteins; McEwan fails to teach that any ligand binds both to its receptor and to a second DNA-binding protein. For these reasons, the rejection over McEwan should be withdrawn.

With respect to the newly-applied rejections, Natesan '653, Natesan '709, Crabtree and Pomerantz all relate to systems in which one of the two polypeptides joined by the

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<sup>1</sup> See, for example, McEwan Abstract and McEwan at page 156.

ligand does not bind to DNA (*see, e.g.*, FIG. 3 of Natesan '709, FIG. 5 of Pomerantz). Note also that, in Example 8 of Crabtree, samples 5 and 6 (Column 45) are the only samples disclosing two proteins bound by a ligand (GF2E and NF3V1E in sample 5; GF3E and NF3V1E in sample 6. Although GF2E and GF3E contain a Gal4 DNA-binding domain (*see* Crabtree at Column 41, line 64 through Column 42, line 12), NF3V1E contains a FKBP domain, a VP16 domain and an epitope tag, none of which bind DNA (*see* Crabtree at Column 43, line 6 through Column 44, line 9).

Thus, none of the cited references teach the subject matter of claim 34 and accordingly, withdrawal of these rejections is respectfully requested.

**CONCLUSION**

Applicant submits that the claims are in condition for allowance and request early notification to that effect. If the Examiner has any further issues or wishes to discuss any of the foregoing, he is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,

Date: January 18, 2005

By: \_\_\_\_\_



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